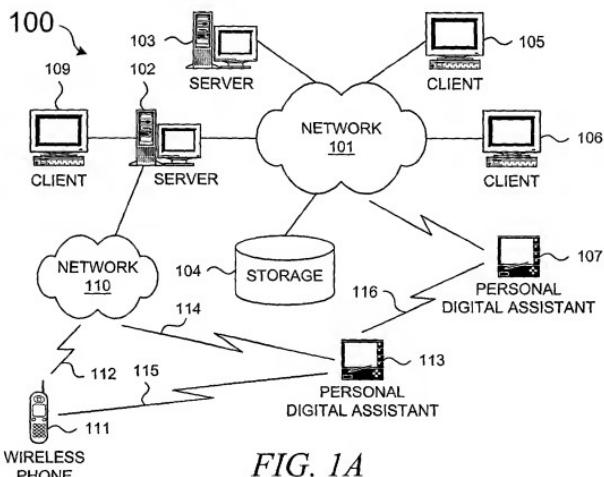
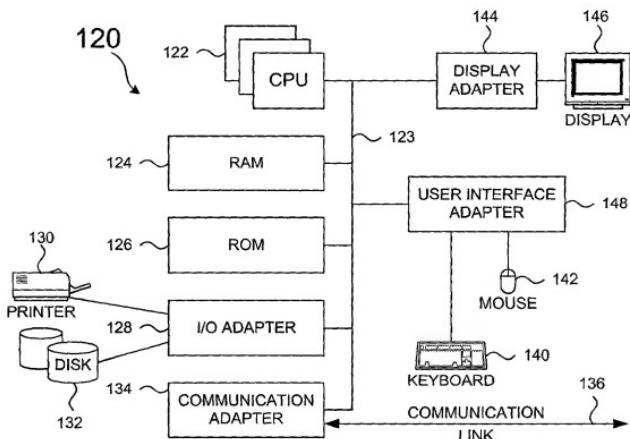


Method and system for a foreach mechanism
in a fragment link to efficiently cache portal content

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*FIG. 1A
(PRIOR ART)*



*FIG. 1B
(PRIOR ART)*

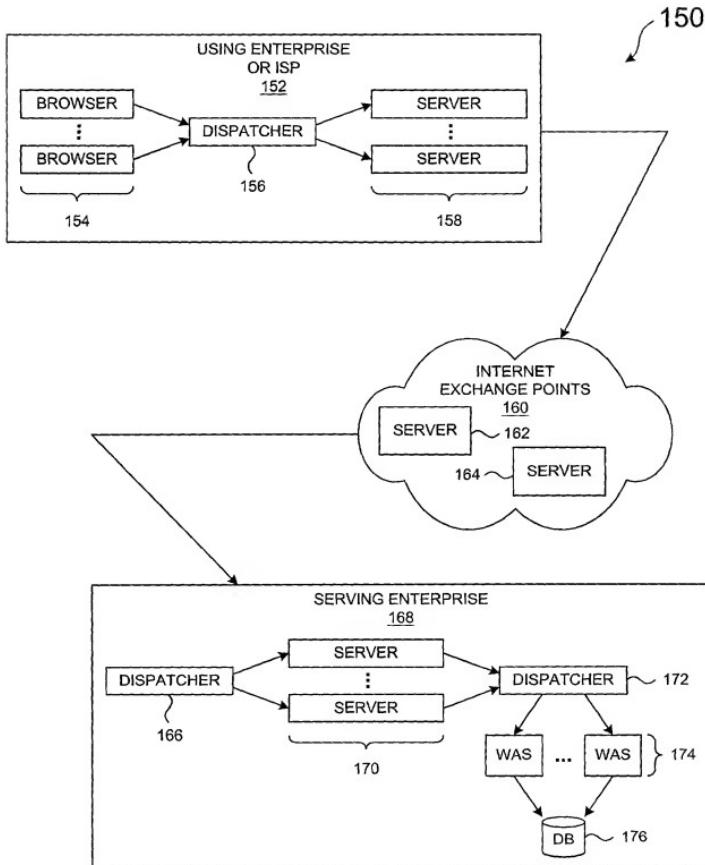


FIG. IC
(PRIOR ART)

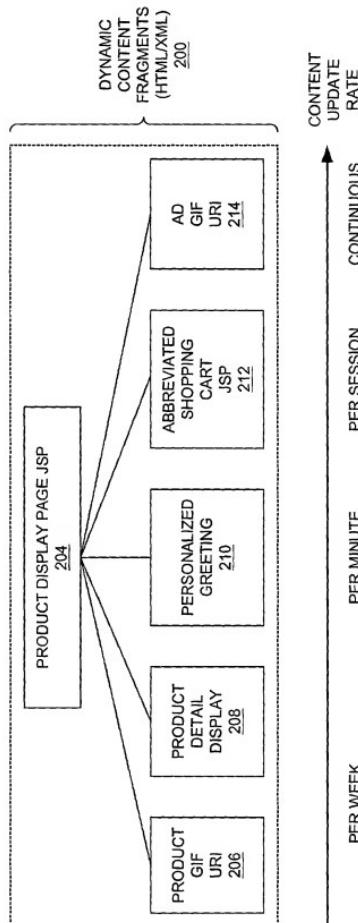


FIG. 2

**Method and system for a foreach mechanism
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```
<!ELEMENT FRAGMENTLINK - O EMPTY -- fragment directive -->
<!ATTLIST FRAGMENTLINK
src      %URL          #REQUIRED -- primary URL of the fragment
alt      %URL          #IMPLIED  -- alternate URL of the fragment
parms   %parmlist #IMPLIED -- query parms applied to src
foreach %string    #IMPLIED -- name of cookie used for
                           -- foreach processing
showlink no|comment|CDATA #IMPLIED
                           -- whether this fragmentlink tag should be included as a
                           -- comment in the assembled page
id      ID             #IMPLIED -- unique name of this element
class   CDATA         #IMPLIED -- class name of this element
>

<!ENTITY % parmlist "CDATA"
-- Space delimited list of form element names
-->
```

Start tag: required; End tag: forbidden.

FIG. 3

```
Fragment = "Fragment" ":" 1#fragment-directive

fragment-directive = fragment-request-directive
                     | fragment-response-directive

fragment-response-directive = "contains-fragments"
                             | "dependencies" "=" quoted-list
                             | "cacheid" "=" rulelist

fragment-request-directive = "supports-fragments"

quoted-list = <"> 1#string <">

rulelist = <"> 1#cacherule <">

cacherule = "(" parmrule [",," cookierule] ")" | "URL"

parmrule = 1#parmname
parmname = string | "[" string "]"

cookierule = 1#cookiename
cookiename = string | "[" string "]"
```

FIG. 4

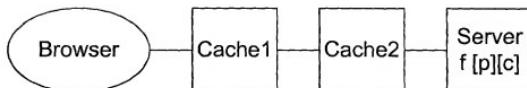


FIG. 5A

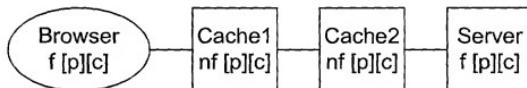


FIG. 5B

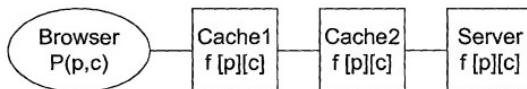


FIG. 5C



FIG. 5D

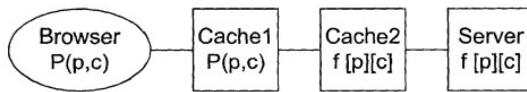


FIG. 5E

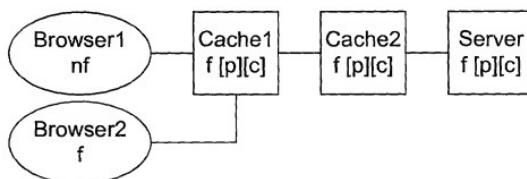


FIG. 5F

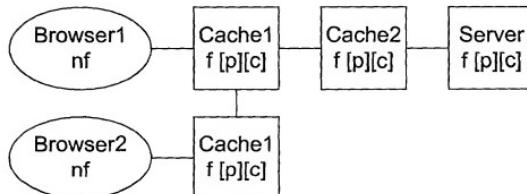


FIG. 5G

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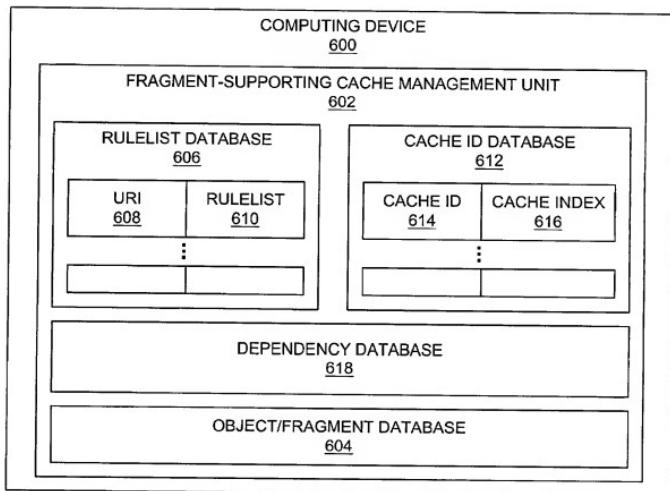


FIG. 6A

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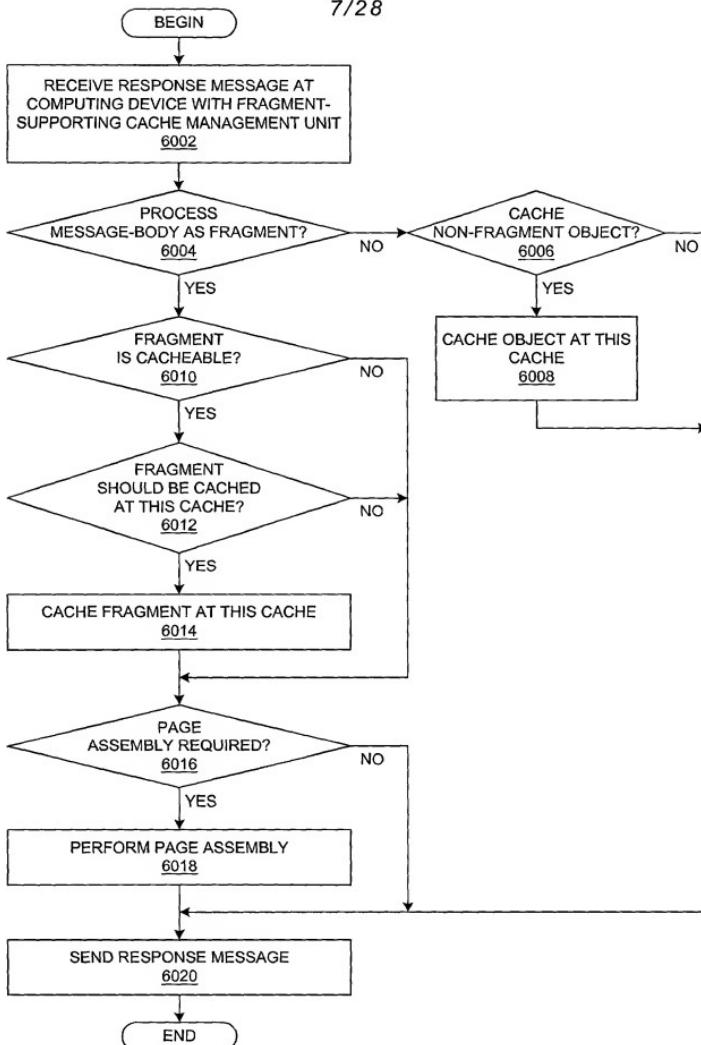


FIG. 6B

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FIG. 6C



FIG. 6D

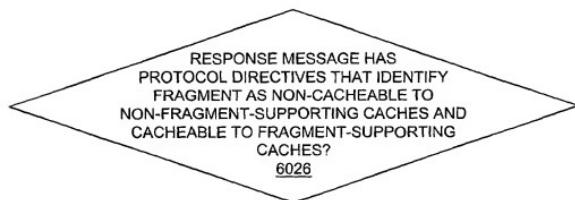


FIG. 6E

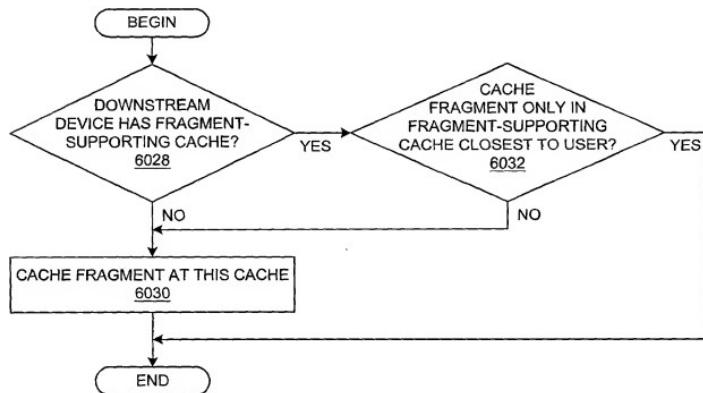


FIG. 6F

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FIG. 6G



FIG. 6H



FIG. 6I

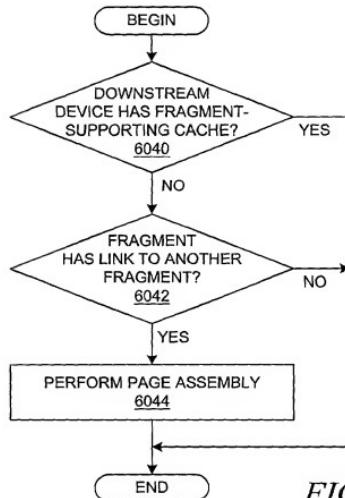


FIG. 6J

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FIG. 6K



FIG. 6L



FIG. 6O

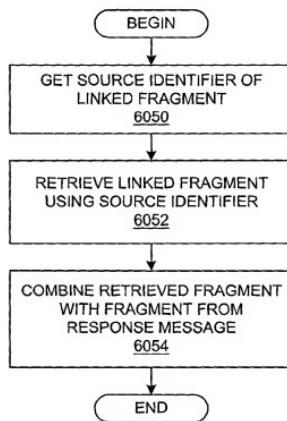
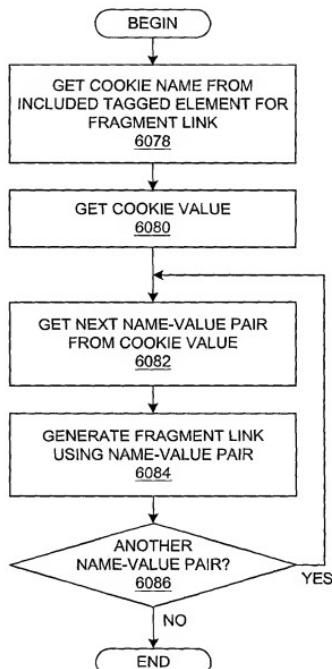
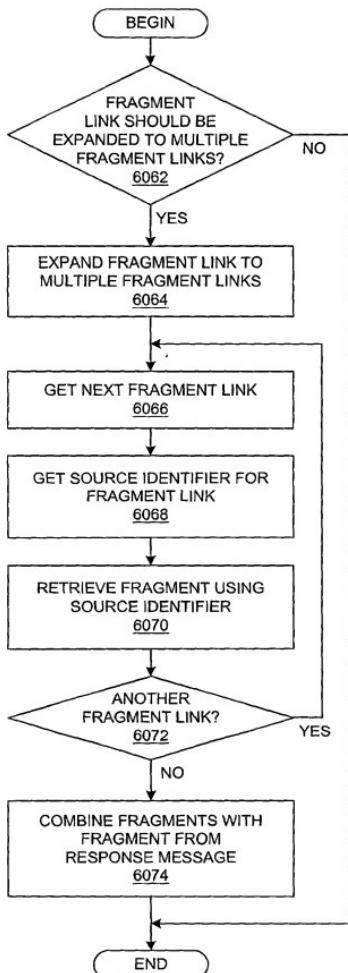


FIG. 6M

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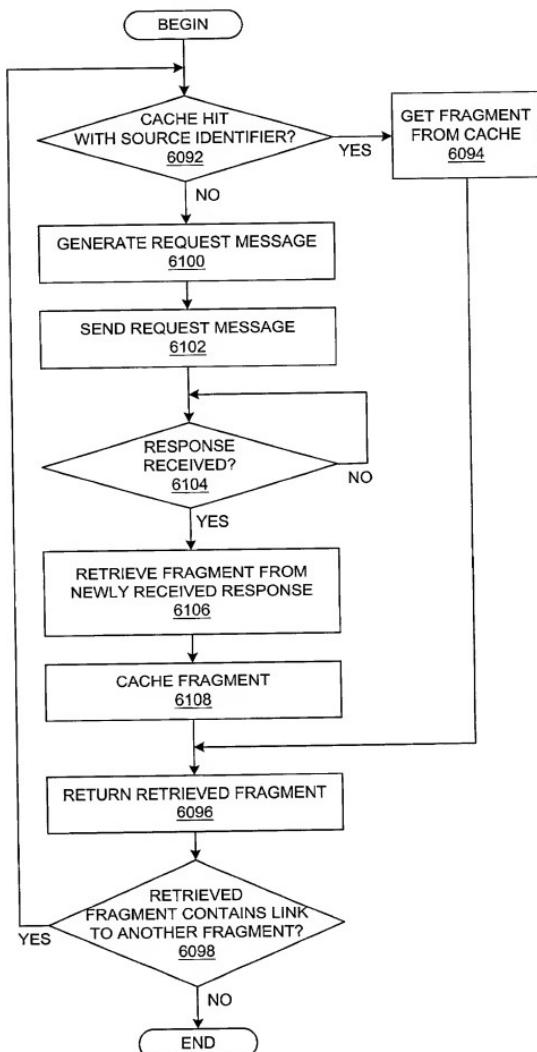


FIG. 6Q

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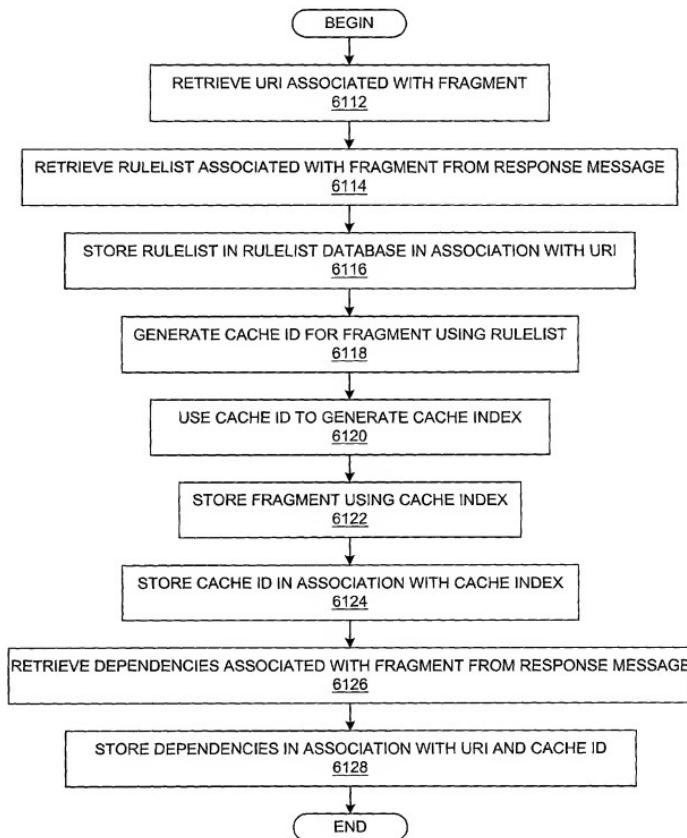


FIG. 6R

**Method and system for a foreach mechanism
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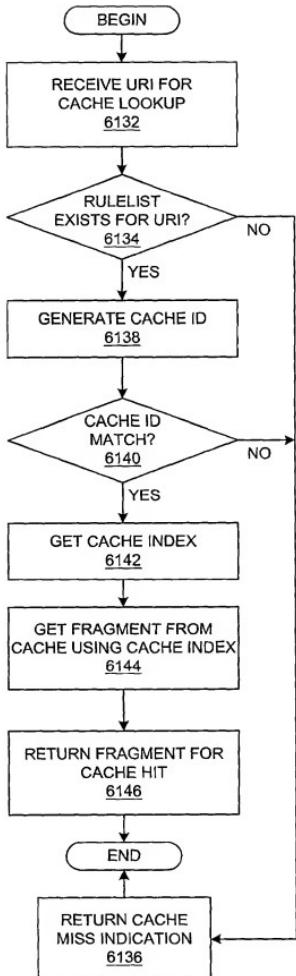


FIG. 6S

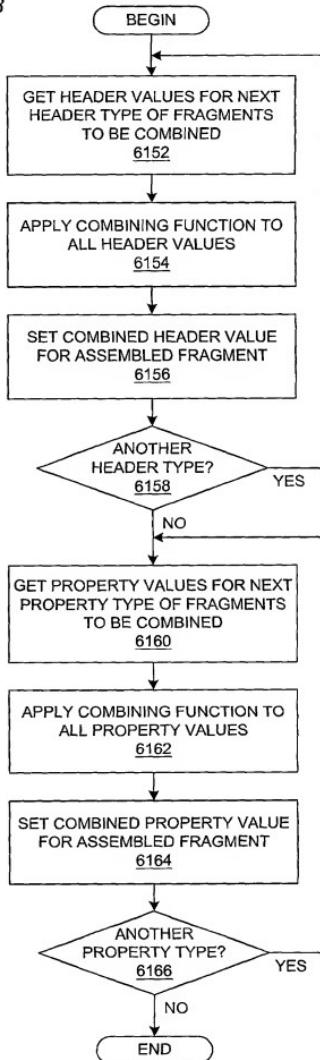
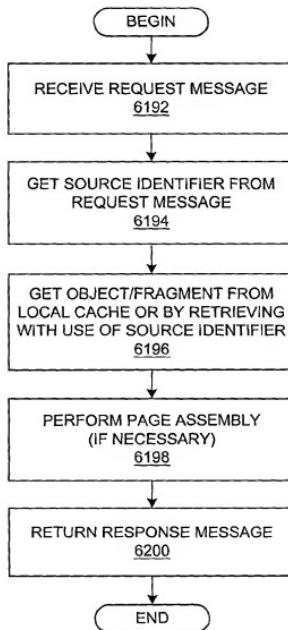
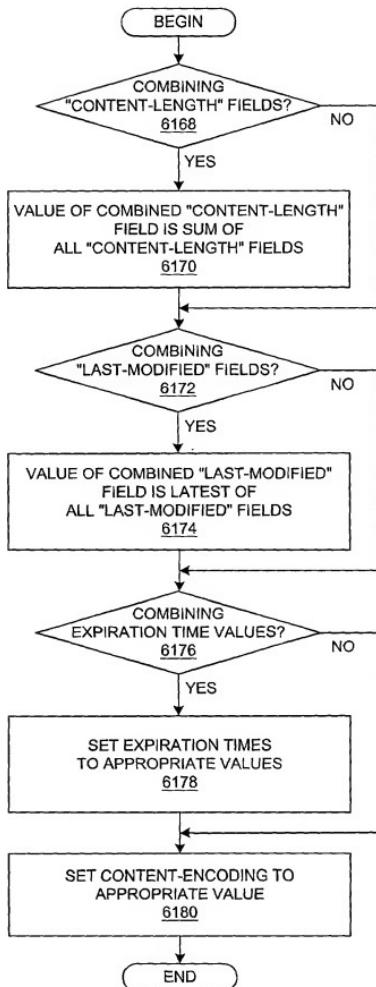


FIG. 6T



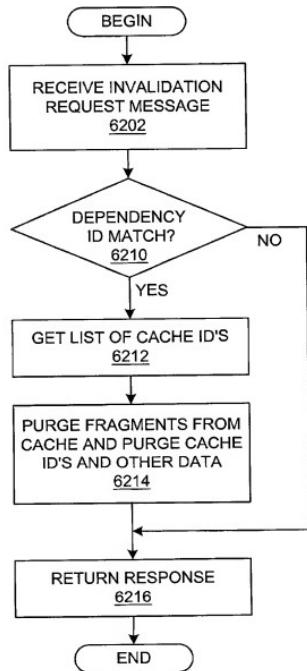
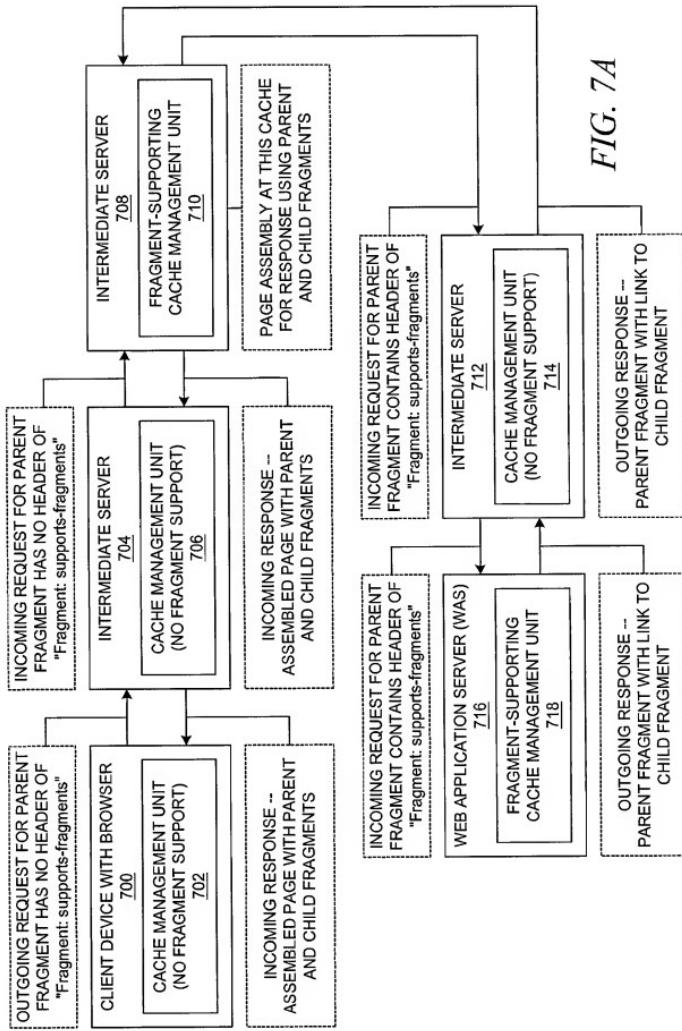
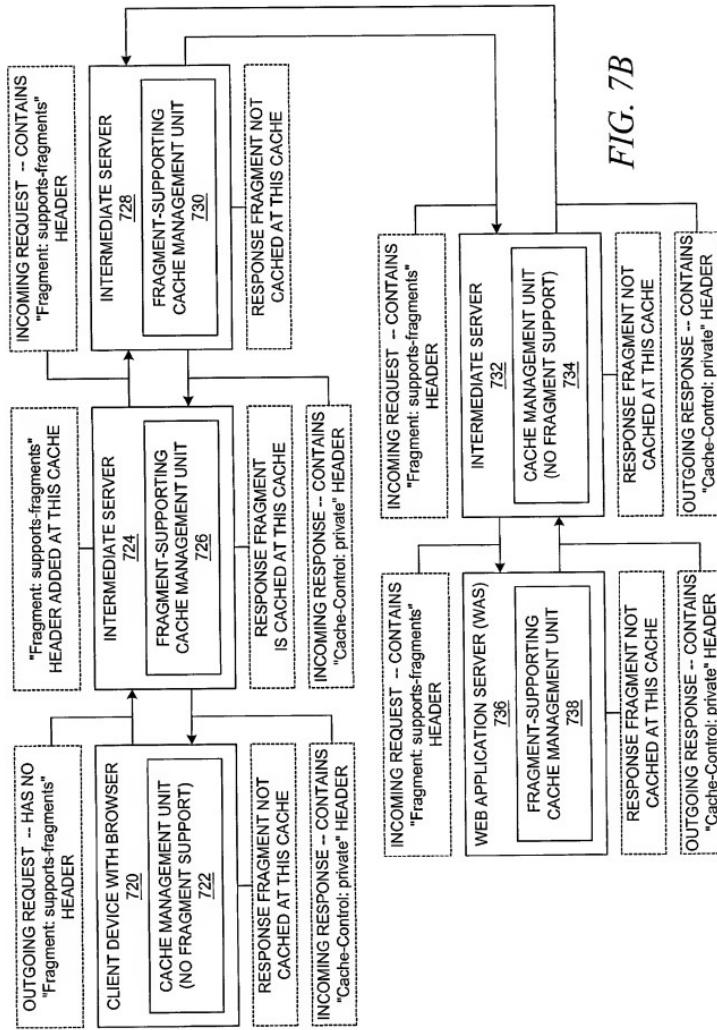


FIG. 6W



**Method and system for a foreach mechanism
in a fragment link to efficiently cache portal content**

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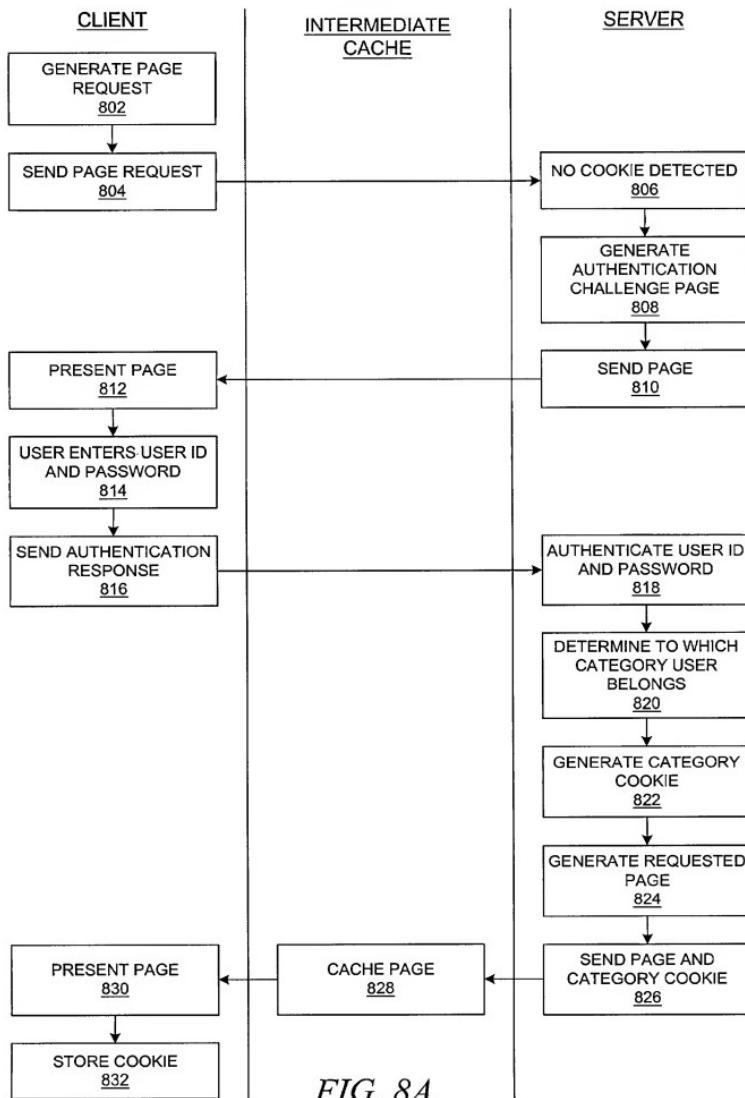


FIG. 8A

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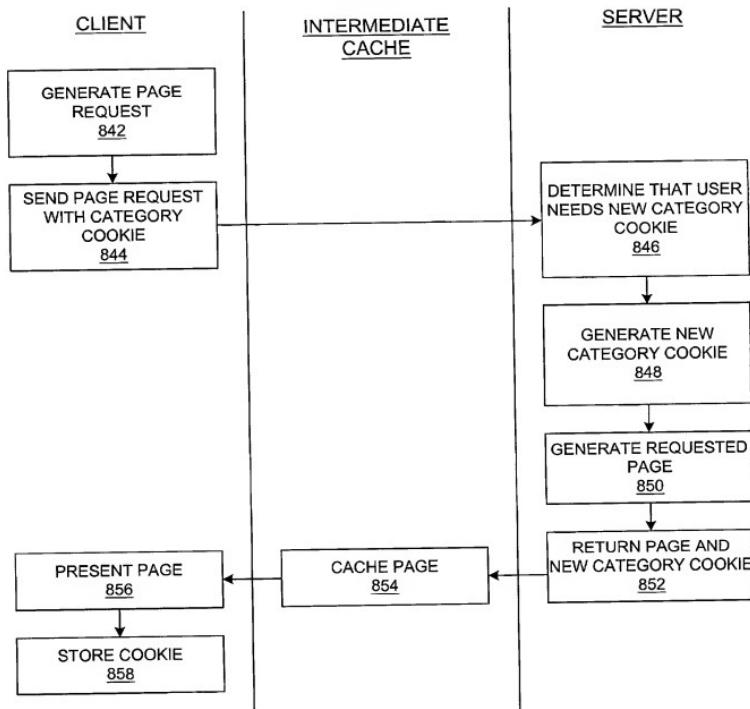


FIG. 8B

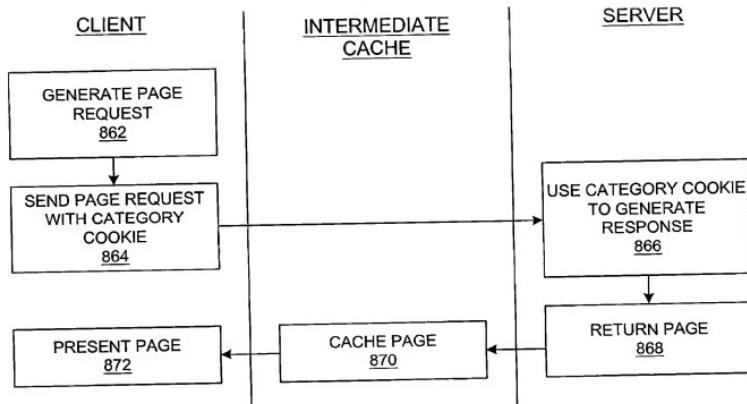


FIG. 8C

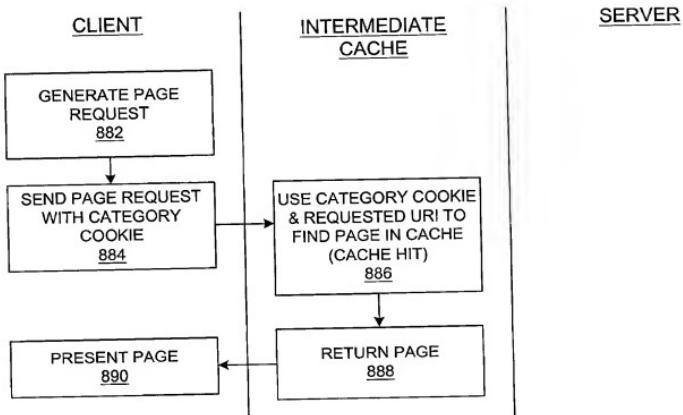


FIG. 8D

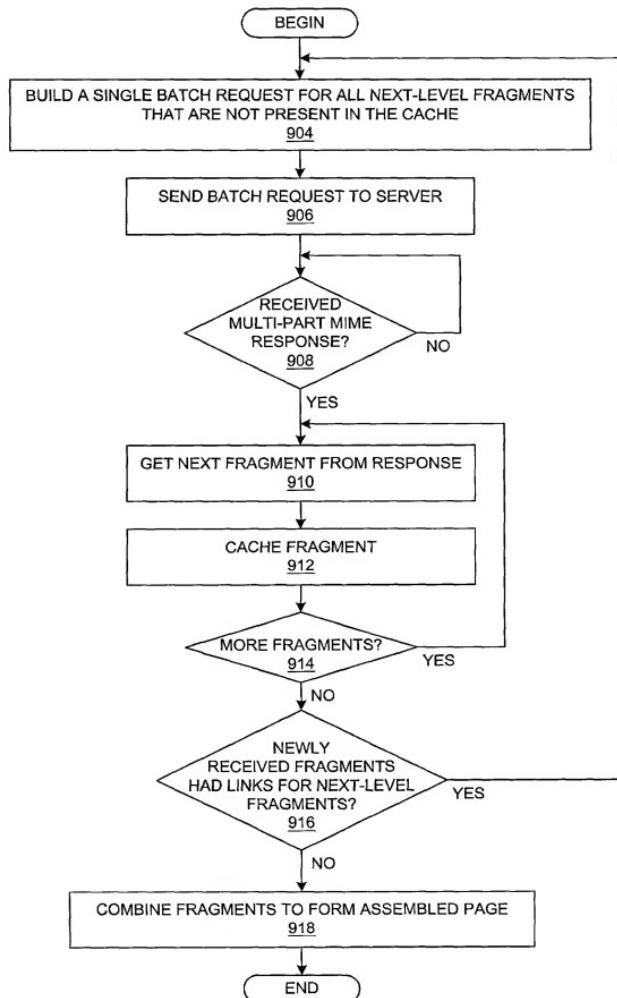


FIG. 9A

**Method and system for a foreach mechanism
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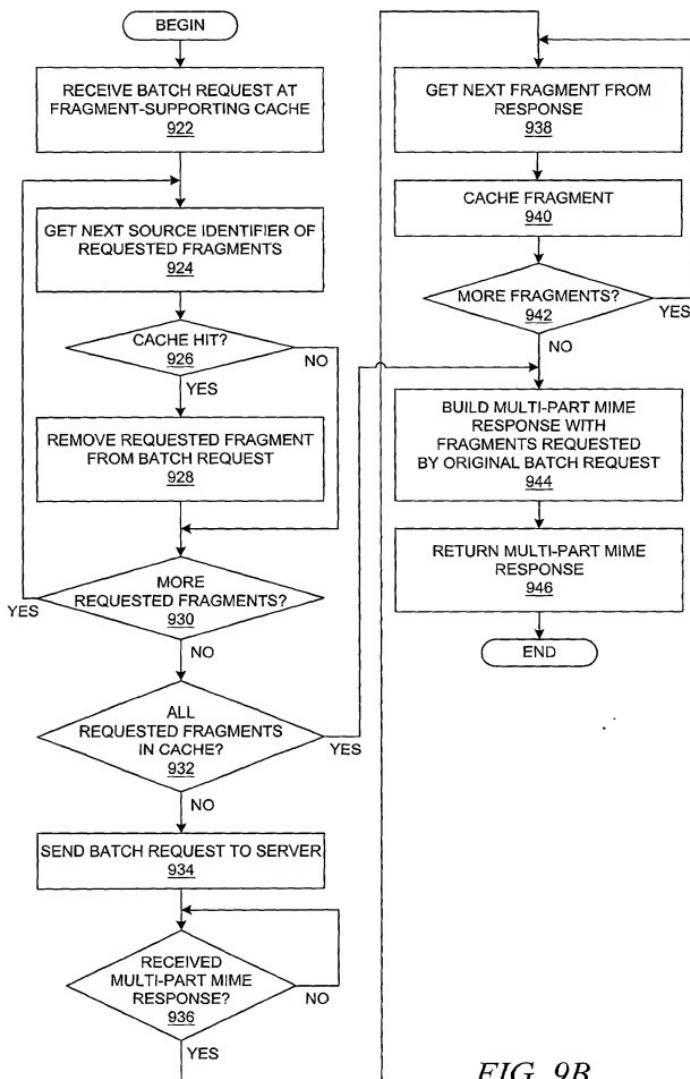


FIG. 9B

Method and system for a foreach mechanism
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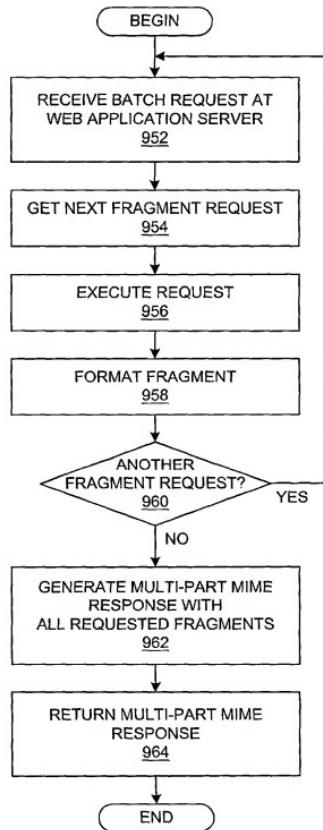


FIG. 9C

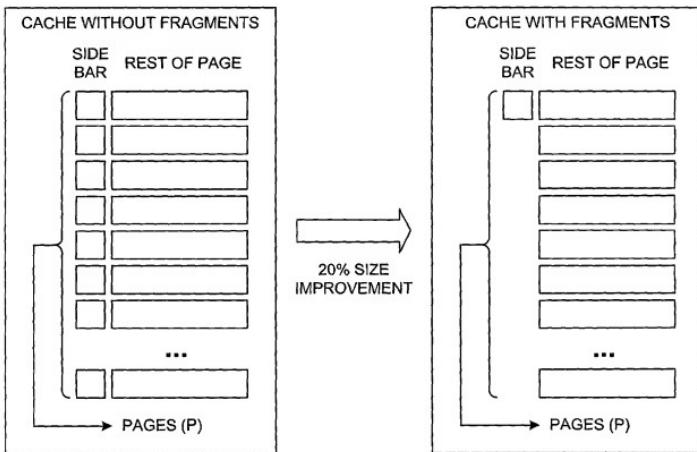


FIG. 10A

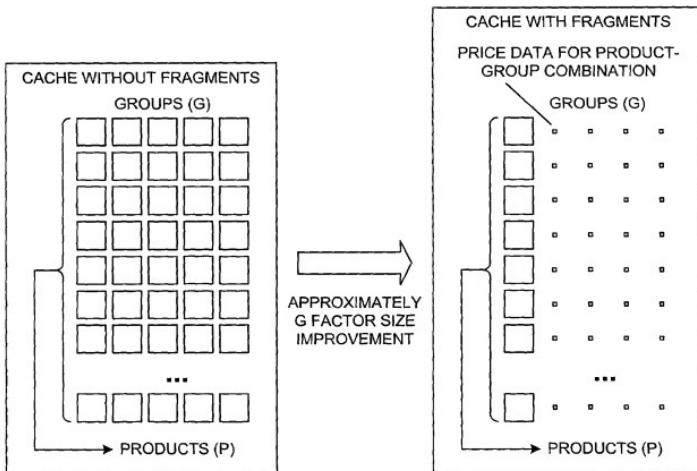


FIG. 10B

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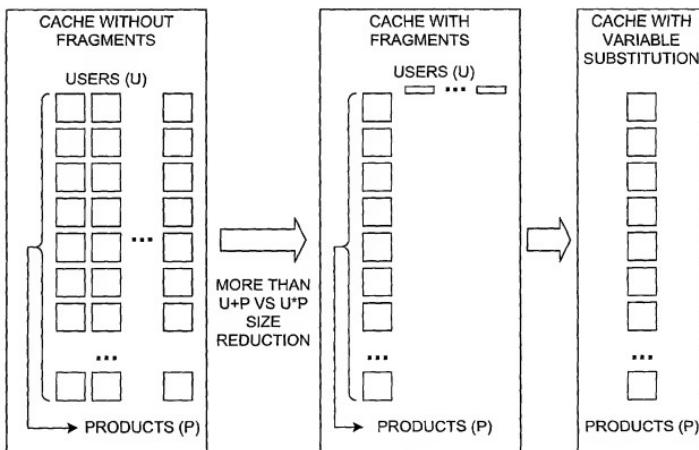


FIG. 10C

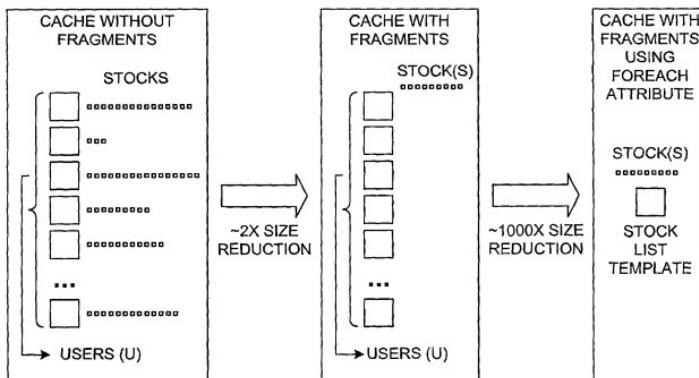


FIG. 10D

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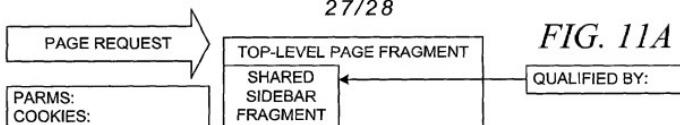


FIG. 11A



FIG. 11B

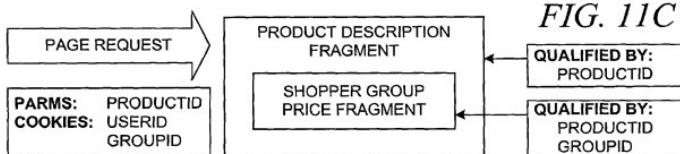


FIG. 11C

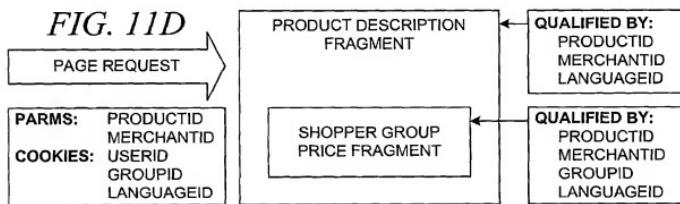


FIG. 11D

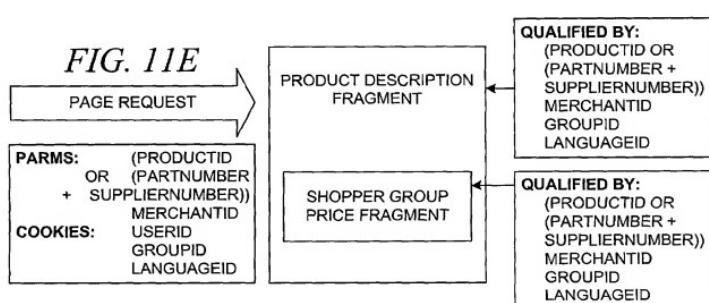


FIG. 11E

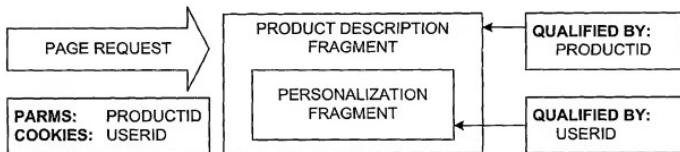


FIG. 11F

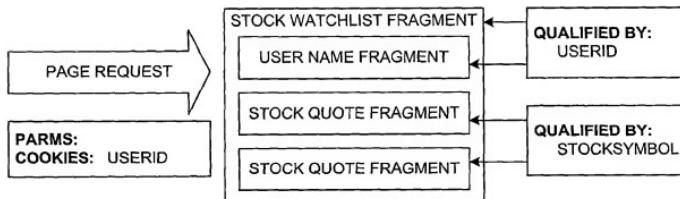


FIG. 11G

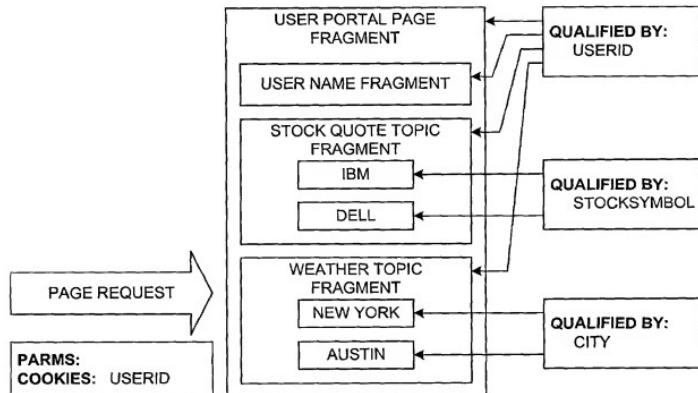


FIG. 11H